



0590
10/11

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/750,986 A

Source: OIPE

Date Processed by STIC: 5-23-01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09/750, 986 A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHIA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleic
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/750,986A

DATE: 05/23/2001
TIME: 12:37:52

Input Set : A:\B-99982.txt
Output Set: C:\CRF3\05232001\I750986A.raw

3 <110> APPLICANT: Steinbuchel, Alexander
 4 Priefert, Horst
 5 Rabenhorst, Jurgen
 7 <120> TITLE OF INVENTION: SYNTHETIC ENZYMES FOR THE PRODUCTION OF CONIFERYL,
 8 ALCOHOL, CONIFERYLALDEHYDE, FERULIC ACID, VANILLIN AND
 9 VANILIC ACID AND THEIR USE
 11 <130> FILE REFERENCE: Bayer-9998.2-HCL
 13 <140> CURRENT APPLICATION NUMBER: 09/750,986A
 14 <141> CURRENT FILING DATE: 2000-12-28
 16 <150> PRIOR APPLICATION NUMBER: 196 49 655.1 GERMANY
 17 <151> PRIOR FILING DATE: 1996-11-29
 19 <160> NUMBER OF SEQ ID NOS: 45
 21 <170> SOFTWARE: PatentIn Ver. 2.1
 23 <210> SEQ ID NO: 1
 24 <211> LENGTH: 32679
 25 <212> TYPE: DNA
 26 <213> ORGANISM: Pseudomonas sp.
 28 <220> FEATURE:
 29 <221> NAME/KEY: CDS
 30 <222> LOCATION: (3146)..(3997)
 31 <223> OTHER INFORMATION: gene = "ORF1"
 33 <400> SEQUENCE: 1
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 38 ctcttgaaca tcagagttgc cgcaattcga gataacgacg gtgactatca gcagaactgt 180
 40 gtagcgaact acgaaggcta cctgtacgag tcggccaaga ttttcgcccgc cccagatcct 240
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 52 atcacccggca cctgcgcAAC aggatcattc agagattcgg ggtgatccca tccaaacatca 600
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 68 ttcgtatgc cggcatttcg gtggacaagc aaacgttcaa ccgcagctgg cgatgcgc 1080
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 82 gggcattcaa acaggaaat taggcataa agctaaaaaa ggatttcaa gtaaagacca 1500

ENTERED
See p. 5

Does Not Comply
Corrected Diskette Needed

p. 6.

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Input Set : A:\B-99982.txt
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88	taagaatgtg	gtgcgatcca	gcctgatgat	gttccgctt	atgcacgcag	ccaagcctat	1680						
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110	gcgggggcaa	cgtcgagtgg	cgcgacgaga	cctacggcac	ggtagggttc	accggcttcc	2340						
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139			Met	Ile	Ala	Ile	Thr	Gly	Ala	Ser	Gly		
140			1			5							
142	caa	ctt	gg	tt	g	act	at	a	g	g	c	3220	
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146	tcc	gaa	att	att	gcc	ctc	gtc	cg	gat	ccg	aat	268	
147	Ser	Glu	Ile	Ile	Ala	Leu	Val	Arg	Asp	Pro	Asn	Lys	
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150	acc	gca	cgt	ggc	atc	gtg	gtg	cgc	cag	gcc	gat	3316	
151	Thr	Ala	Arg	Gly	Ile	Val	Val	Arg	Gln	Ala	Asp	Tyr	
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158	tcc	agt	gag	gt	gt	ggt	caa	cga	act	g	cg	ca	3412
159	Ser	Ser	Glu	Val	Gly	Gln	Arg	Thr	Ala	Gln	His	Arg	
160												75	
162	gct	g	cg	a	g	ca	aa	gg	atc	g	atc	gac	3460
163	Ala	Ala	Lys	Gln	Glu	Gly	Ile	Glu	Leu	Leu	Ala	Tyr	
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166	cat	gcc	gat	aaa	tcg	g	ctg	ggc	cta	g	ca	g	3508

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Input Set : A:\B-99982.txt
Output Set: C:\CRF3\05232001\I750986A.raw

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172 gaa cag gcc ctg aca gag tcc ggt att cct cat gtc ctg ttg cgc aac	3556			
173 Glu Gln Ala Leu Thr Glu Ser Gly Ile Pro His Val Leu Leu Arg Asn				
174	125	130	135	
176 ggt tgg tat cac gag aac tac acg gcg atc cca gtc gcg ctg gtt	3604			
177 Gly Trp Tyr His Glu Asn Tyr Thr Ala Gly Ile Pro Val Ala Leu Val				
178	140	145	150	
180 cat ggc gtg ttg ctg ggc tgt gcc cag gat ggc ttg att gct tct gct	3652			
181 His Gly Val Leu Leu Gly Cys Ala Gln Asp Gly Leu Ile Ala Ser Ala				
182	155	160	165	
184 gca cgt gct gac tac gcc gaa gca gcg gct gtg gtg ctc acc ggt gag	3700			
185 Ala Arg Ala Asp Tyr Ala Glu Ala Ala Val Val Leu Thr Gly Glu				
186	170	175	180	185
188 aat cag gca ggt cgc gtc tac gag ctg gcc ggt gaa ccg gca tat acg	3748			
189 Asn Gln Ala Gly Arg Val Tyr Glu Leu Ala Gly Glu Pro Ala Tyr Thr				
190	190	195	200	
192 ctc acc gaa ctg gca gct gag gtg gcg ccg caa gca gga aag acc gtc	3796			
193 Leu Thr Glu Leu Ala Ala Glu Val Ala Pro Gln Ala Gly Lys Thr Val				
194	205	210	215	
196 gtg tat tcg aac cta tcc gag agc gat tac cga tct gcg ttg atc agt	3844			
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198	220	225	230	
200 gcg ggc ctt ccc gat ggt ttt gcg gca ttg ctc gca gac tct gat gca	3892			
201 Ala Gly Leu Pro Asp Gly Phe Ala Ala Leu Leu Ala Asp Ser Asp Ala				
202	235	240	245	
204 ggc gca gcc aag ggg tat ttg ttt gat tcc agt gga gac agt cgc aag	3940			
205 Gly Ala Ala Lys Gly Tyr Leu Phe Asp Ser Ser Gly Asp Ser Arg Lys				
206	250	255	260	265
208 ctg atc ggt cgc cca acc act ccg atg tcg gaa gcc atc gcg gca gca	3988			
209 Leu Ile Gly Arg Pro Thr Thr Pro Met Ser Glu Ala Ile Ala Ala Ala				
210	270	275	280	
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213 Ile Gly Arg				
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Input Set : A:\B-99982.txt
Output Set: C:\CRF3\05232001\I750986A.raw

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335 tgctactcgttgc ggcgttgcgttgc tggtcgttgc cggccgggttgc cggcgttgcgttgc 7697
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339 ctccctggcg aagattccca agaatgcgc gtcggagaaa gtcgttgcgttgc tggcgttgc 7817
341 cgtgaccacc ggcattggcg cgggtgttgc cactgcgttgcgttgc gtcgttgcgttgc 7877

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/750,986A

DATE: 05/23/2001
TIME: 12:37:52

Input Set : A:\B-99982.txt
Output Set: C:\CRF3\05232001\I750986A.raw

```

343 ggccatcttc ggcctggcgc gcacatcggtt ggccggcgatc atcggcgca agatggccaa 7937
345 ggcctcgccg atcatcgcca tcgcacatcaa tccgtccaag ttgcgtgtgg ctcgcgagct 7997
347 gggcgccact gacttcgtca atccgaacga tcacgcgaag ccgatccagg atgtcatcg 8057
349 cgagatgact gatggcggtg tggactacag cttcgagtgc atcggcaacg ttgcactcat 8117
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353 gcccgggggg gccgaaatca acacccgtcc gttccacctg gtgaccggc gcgtctggcg 8237
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365 actcttgctg gacggtttagt gctgttatcc ggcaccgacg aattaaccct gcttcttcgg 8597
367 ggtggtcggg gcattgagcg tgaagccttgc cgggtcgatg ttcaagggtga actggcgctg 8657
369 acgcctcacc cggccggcgct tggctctgcg ttgaccatc cgacaatttac tacggattac 8717
371 gcccggggcc tgcgtttagt gatcaactcgg ccggcaacccg attgtgcqca agccttggct 8777
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431 acaagaaggc cattaagatg atgaatgtt attataaggc tgcgtggccg agcctactcc 10577
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437 ttggccggccg cctccggccg actctgcgatgg ggcggccatgc ccctccacag tacacggagt 10757
439 acatggtgcg tcatggacgc gggcaatgc ctgcatttcg tgaaggcagaa gtcctccgg 10817

```

<210> 3
 <211> 1065
 <212> DNA
 <213> not required under old rule

<220>
 <221> CDS
 <222> (1)...(1062)
 <223> product = "Vanillinsaeure-O-Demethylase" / gene = "vanA"

<400> 3

atg ttt ccg aaa aac gcc tgg tat gtc gct tgc act ccg gat gaa atc
 Met Phe Pro Lys Asn Ala Trp Tyr Val Ala Cys Thr Pro Asp Glu Ile

1

5

10

15

48

on the Error
Summary sheet.

<213> organisms is a
mandatory response under
 the new rules, which is the
 format you are using.
 See #10

* Note: This error occurs
 throughout the sequence
 listing. Please review
 and correct all instances.

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
 Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
 <223> fields of each sequence which presents at least one n or Xaa.

F.Y.I.



VERIFICATION SUMMARY

PATENT APPLICATION: US/09/750,986A

DATE: 05/23/2001

TIME: 12:37:53

Input Set : A:\B-99982.txt

Output Set: C:\CRF3\05232001\I750986A.raw

L:4934 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44

L:4937 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44

L:4955 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45